



#### **12v Heating Element**

12v Heating Element is mainly made of Al2O3,which is manufactured by sintering in high temperature above 1600 deg C with heating layer printed in the ceramic sheet. The ceramic heaters generates heat when an electric current is applied to .It is capable of raising its temperature to 800 deg C within 30 seconds. The metal ceramic heating core has many merit such as excellent resistance, noiselessness, usefulness for every required heat-setting. Mean while this kind of MCH Ceramic Heater contains no harmful materials such as lead, hg, chromium ect.

Model:E6038TKA

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## Material Properties of 12v Heating Element

Item	Inspection Condition	Unit	Standard	
Color			White	
Density		g/cm3	3.7	
Water absorption		%	0	
Average grain size		μm	3~5	
Hardness	Load 4.9N 4.9N	GPa	≥15	
Flexural strength		MPa	≥274	
lin	<b>20∼500</b> °C	1×10-6mm/℃	6.5~7.5	
Linear expansion coefficient	<b>20∼800</b> ℃	1×10-6mm/ C	6.5~8.0	
Thermal conductivity	<b>20</b> ℃	W/(m⋅K)	≥20.9	
Specific heat		kJ/(kg⋅K)	≥0.8	
Insulation strength		KV/mm	≥12	
	<b>20</b> ℃		≥1014	
Volume resistivity	<b>300</b> °C	Ohm.cm	≥1011	
	<b>500</b> ℃		≥109	
Permittivity	1MHz		9~10	
Dielectric loss tangent	1MHz		≤3×10-4	
Surface roughness		μm	0.3~0.8	

#### Features of 12v Heating Element

**12V Heating Element** is a new type of high efficient heating elements, which can save more than 20%-30% power effect compare to PTC ceramic heaters. Our alumina ceramic heaters have many excellent features:

High reliability, stable resistance, no electric noise

Good chemical resistance

full compliance with EU RoHS (no lead, cadmium, mercury, hexavalent chromium, PCBS, and other harmful substances)

No charge on surface and safe to touch.



#### Parameter of 12v Heating Element

Configuration and Dimension								
Shape	Dimension	Tolerance		Tolerance		Tolerance	Resistance Tolerance	
Plate	Length (mm)		Width(mm)		Thickness(mm)			
	10~120	(1)≤20+/-0.3 (2)≥20+/-1	2~60	<ol> <li>(1)≤20+/-0.3</li> <li>(2) ≥20+/-1</li> </ol>	0.55~2.0	(1)≤1+/-0.1 (2) ≥1+/-0.15	+/-10%	
	length		Diameter					
Rod	8~121	(1)≥30mm:+/-0.5 (2)30~100mm:+/-1.0 (3)≤100mm~:+/-1.5	2.5~8	(1)≥5mm:+/-0.1 (2)5~9mm:+/-0.2 (3)≤9mm~:+/-0.3			+/-10%	
Tube	8~121		2.5~20				+/-10%	

# Packing and Delivery

The suitable packing should be taken to avoid the breakage and contamination during the shipment. If the products are not sufficient to full of carton, buffer material can be used to ensure the shipping safety.



### **Our Advantage**

- 1. Aluminum Ceramic Heating Element Factory
- 2.On-line Employees more than 150~200
- 3. Customization are welcome
- 4.Heater Month Capacity:550,000 piece
- 5. Quick Delivery time for already models: 1-3 days
- 6.Free Heater elements Samples are available